Project Introduction

Visidyne proposes to develop a design for a small, lightweight, high resolution, in x, y, and z Doppler imager to assist in the guidance, navigation and control (GN&C) of satellites as for a chaser-target vehicle type scenario. It could therefore be used for rendezvous, circumnavigation, inspection and docking. Key elements for the design are Visidyne?s patented imaging LADAR or monocular 3-D camera design and an innovative, CCD chip extracted from MIT/Lincoln Laboratory, a federally funded research and development center (FFRDC). A novel feature is the ability to cancel, null any gross relative motions between vehicles, thereby greatly improving on the achievable attitude, pose precision.

Primary U.S. Work Locations and Key Partners

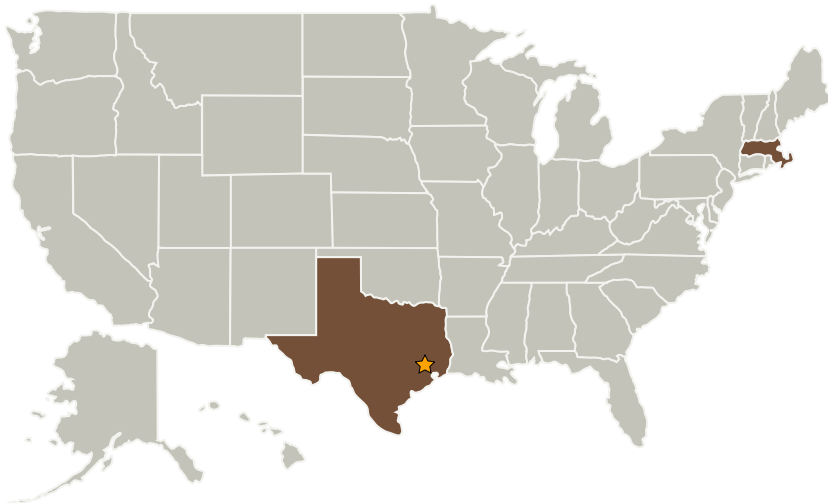| Organizations Performing Work	Role	Type	Location
⭐Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Visidyne, Inc.	Supporting Organization	Industry	Burlington, Massachusetts

High Resolution, Range/Range-Rate Imager, Phase I

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Primary U.S. Work Locations	
Massachusetts	Texas

Project Management

Program Director:
Jason L Kessler

Program Manager:
Carlos Torrez

Principal Investigator:
Geert Wyntjes

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - └ TX11.5 Mission Architecture, Systems Analysis and Concept Development
    - └ TX11.5.3 Tools and Methodologies for Vehicle or Concept Definition Activities